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Order from ATS \$13.25 ATS-30N54G

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DESCRIPTORS: *Gallium alloys, *Silicon alloys, Al-
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I. Kessler, H.
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DESCRIPTORS: *Titanium, *Zirconium, Melting,
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DESCRIPTORS: *Copper, *Tellurium, *Phase studies,
Copper compounds, Tellurides, Chemical reactions,

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[Thesis Halle U. (East Germany) 1955. [1963] 15p 15
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Order from SLA \$1.60

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Trans. of Zeitschrift für Metallkunde (West Germany)
1957, v. 48, p. 26-32.

DESCRIPTORS: Theses, *Nickel alloys, *Iron alloys,
*Anisotropy, Rolling mills, Cold working, Heat treat-
ment, Magnetic properties, Crystal structure.

The magnetic anisotropy of reversible Fe-Ni alloys was
measured after cold-rolling as a function of the degree
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sults are interpreted in terms of disorder affecting the
unit cell of the FeNi₃ superstructure. The direction
and relative magnitude of the anisotropy are calculated
and compared with experiment. (Author)

- I. Title: Cubic metals
- I. Bunge, H. -J.
- II. Müller, H. G.
- III. Halle U. (East Germany)

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DESCRIPTORS: *Tantalum, *Oxygen, *Oxidation,
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Title: Physical Properties of Superstructures with
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Source: Z. Metallk. Vol. 49. (1958).

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TITANIUM-MOLYBDENUM ALLOYS. [1963] 15p (figs
[refs] omitted)

Order from SLA \$1.60

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I. Lohberg, K.
II. Westpahl, H.Trans. of *Zeitschrift für Metallkunde* (West
Germany) 1958, v. 49, no. 9, p. 449-455.DESCRIPTORS: *Molybdenum alloys, *Titanium alloys,
*Vanadium alloys, Hardness, Annealing, Heat treat-
ment, Phase studies,The formation and retrogression of the ω -structure of
titanium-molybdenum alloys were investigated at
various temperatures by means of hardness, length-
change, and susceptibility measurements, and by means
of X-ray-graphic and metallographic observations. For
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OXYGEN DETERMINATION IN ZINC AND MAGNE-
SIUM. [1961] (refs., 2 tables omitted).
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Trans. of Z[eitschrift für Metallkunde] (Germany)
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DESCRIPTORS: *Zinc, *Magnesium, Chemical anal-
ysis, *Oxygen, Determination.

The procedure is based on $ZnO + H_2S = ZnS + H_2O$.
Hydrogen sulfide was conducted over the zinc melt at
550° with hydrogen as carrier. The water which is
formed is caught in a U-shaped absorption tube with
phosphor pentoxide and weighed. In this manner oxy-
gen content between 0.0004 and 0.0006% was deter-
mined for various types of zinc in compact form. Re-
sults show that the determination of O_2 in metallic mag-
nesium is made in the same way as in zinc. (Author)

I. Hartmann, H.
II. Hofmann, W.
III. Gerhard, S.

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Vaporization in Floating Zone, by G. Ziegler, 5 pp.
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magnesium alloys--Test
methods

2. Title: Press effect

I. Dickenscheld, W.
II. Seemann, H. J.

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ON THE EFFECT OF DEFORMATIONS ON THE
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HARDENING ALUMINIUM ALLOY. (1961).
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pt\$4.80 as 60-18903 [1960] 26p.

DESCRIPTORS: *Aluminum alloys, *Mechanical prop-
erties, *Hardening.

For abstract see Technical Translations 4: 687, 1960.

(Metallurgy, TT, v. 6, no. 1)

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hardening

1. Richter, H.

II. Wassermann, G.

III. FRI Trans-137

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12 pp.

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AEC-Tr-3678

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Bungardt, Karl and Weigand, Hans-Hermann.
INFLUENCE OF HEAT TREATMENT ON SOME
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lung auf Einige Eigenschaften von Korrosions-
beständigen Nickel-Molybdän-Legierungen). [1960]
[19]p. 9 refs.

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1959, v. 50 [no. 1] p. 11-18.

The effect of a heat treatment on microstructure, hard-
ness, strength and corrodibility was tested with four
corrosion resistant nickel-molybdenum alloys (with and
without an addition of chromium). It was found that a
change in these properties depends on the kind of pre-
cipitate which is formed during the heat treatment. The
results are discussed. (Author)

(Metallurgy--Structural, TT, v. 5, no. 7)

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II. Weigand, H.

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Welding Device for Thin Thermo-Couples, by
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Preparation of Germanium Single Crystals from
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Bohm, H.
DISCONTINUOUS PRECIPITATION IN COPPER-INDIUM ALLOYS. [1962] [18]p. 14 refs.
Order from SLA \$1.60 62-14764

Trans. of Zeit[schrift] für Metallkunde (West Germany) 1959, v. 50, no. 2, p. 87-93.

DESCRIPTORS: *Copper alloys, *Indium alloys, Precipitation, Microstructure, Phase transitions.

The precipitation of δ -phase from supersaturated α solid solution in copper alloys with 4, 6, 10, 12.5 and 15% In was investigated in the temperature range 200 to 480° C. From the values of growth rate and lamellar spacing, the activation energy for grain-boundary diffusion is found to be 20 K cal/g-at. at 15% In, rising to 23 K cal/g-at. at 6% In. In the range in which the discontinuous precipitate is not optically resolvable, occurring as grain-boundary bands, the growth (Metallurgy--Structural, TT, v. 8, no. 3) (over)

62-14764

I. Bohm, H.

GB/33/169
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